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Barristers & Solicitors
Patent & Trade-mark Agents

McCarthy Tétrault



McCarthy Tétrault LLP
Box 48, Suite 4700
Toronto Dominion Bank Tower
Toronto ON M5K 1E6
Canada
Telephone: 416 362-1812
Facsimile: 416 868-0673
mccarthy.ca

Joseph Conneely
Direct: 416-601-8179
Direct Fax: 416-868-0673
E-Mail: jconneely@mccarthy.ca

January 16, 2007

VIA COURIER

United States Patent and Trademark Office
Customer Service Window
Office of Patent Publication
Attention: Certificates of Correction Branch
Randolph Building
401 Dulany Street
Alexandria, Virginia 22314
U.S.A.

Certificate
JAN 23 2007
of Correction

Dear Commissioner for Patents:

RE: U.S. Patent No. 6,917,616
Inventors: Dominique Normand, et al.
For: Method and Apparatus for Reduction and Restoration of Data Elements
Pertaining to Transmitted Data Packets in a Communications Network
Docket No.: 123081-339655

Please find attached the following documents for filing with respect to the above patent:

1. Transmittal Form (1 sheet);
2. Fee Transmittal Form (1 sheet);
3. Request for Certificate of Correction (34 pages); and,
4. Certificate of Correction (8 sheets).

The Commissioner is hereby authorized to charge all necessary fees and to credit Deposit Account No. 150633 in the name of McCarthy Tétrault LLP (Customer No. 27,155).

Please date stamp and return to us the enclosed "Return Receipt Postcard".

JAN 23 2007

McCarthy Tétrault

January 16, 2007

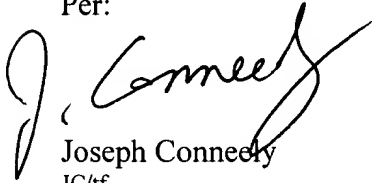
- 2 -

USPTO

Thank you very much for your assistance in this matter.

Yours very truly,
McCarthy Tétrault LLP

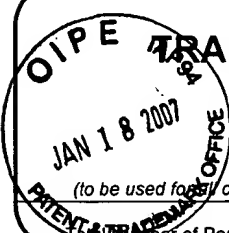
Per:




Joseph Conneely
JC/tf
/Enclosure

JAN 23 2007

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

	TRANSMITTAL FORM		
	Application Number	09/397,849	
	Filing Date	SEPTEMBER 17, 1999	
	First Named Inventor	DOMINIQUE NORMAND	
	Art Unit	2662	
	Examiner Name	MELVIN C. MARCELO	
Number of Pages in This Submission	44	Attorney Docket Number	123081-339655

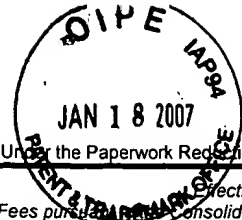
ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): REQUEST FOR CERTIFICATE OF CORRECTION
Remarks <input type="text"/>		
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Firm Name	MCCARTHY TETRAULT LLP (CUST. NO. 27,155)	
Signature		
Printed name	JOSEPH CONNEELY	
Date	JANUARY 16, 2007	Reg. No. 54,883

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:			
Signature	<input type="text"/>		
Typed or printed name	<input type="text"/>	Date	<input type="text"/>

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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JAN 23 2007



PTO/SB/17 (07-06)

Approved for use through 01/31/2007. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it displays a valid OMB control number

Effective on 12/08/2004.
Fees pursuant to Consolidated Appropriations Act, 2005 (H.R. 4818).**FEE TRANSMITTAL**
For FY 2006☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 100.00

Complete if Known

Application Number	09/397,849
Filing Date	SEPTEMBER 17, 1999
First Named Inventor	DOMINIQUE NORMAND
Examiner Name	MELVIN C. MARCELO
Art Unit	2662
Attorney Docket No.	123081-339655

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☒ Deposit Account Deposit Account Number: 150633 Deposit Account Name: MCCARTHY TETRAULT LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

<u>Total Claims</u>	<u>Extra Claims</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>	<u>Multiple Dependent Claims</u>	
- 20 or HP =	x	=		<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>

HP = highest number of total claims paid for, if greater than 20.

<u>Indep. Claims</u>	<u>Extra Claims</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>
- 3 or HP =	x	=	

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

<u>Total Sheets</u>	<u>Extra Sheets</u>	<u>Number of each additional 50 or fraction thereof</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>
- 100 =	/ 50 =	(round up to a whole number) x	=	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): CERTIFICATE OF CORRECTIONFees Paid (\$)100.00**SUBMITTED BY**

Signature <u>J. Conneely</u>	Registration No. (Attorney/Agent) <u>54,883</u>	Telephone <u>416-601-8179</u>
Name (Print/Type) <u>JOSEPH CONNEELY (CUST. NO. 27,155)</u>		Date <u>JANUARY 16, 2007</u>

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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JAN 23 2007

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 8

PATENT NO. : 6,917,616

APPLICATION NO.: 09/397,849

ISSUE DATE : July 12, 2005

INVENTOR(S) : Dominique Normand, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

1. Abstract, line 4: Replace the semi-colon -- ; -- with a colon -- : --.
2. Abstract, line 5: Delete the semi-colon -- ; --.
3. Specification, column 1, line 28: Replace the word -- element -- with the word -- elements --.
4. Specification, column 1, line 33: Replace the word -- leader -- with the word -- header --.
5. Specification, column 1, line 51: Replace the word -- comes -- with the word -- connects --.
6. Specification, column 2, line 16: Replace the word -- is -- with the word -- in --.
7. Specification, column 3, line 9: Replace the word -- site -- with the word -- size --.
8. Specification, column 3, line 14: Replace the -- end -- with the word -- and --.
9. Specification, column 4, line 56: Replace the word -- end -- with the word -- and --.
10. Specification, column 4, line 60: Replace the word -- as -- with the word -- an --.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

McCarthy Tetrault LLP, Box 48, Suite 4700, 66 Wellington Street West, Toronto, Ontario, Canada M5K 1E6
(File Number 123081-339655)

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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JAN 23 2007

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 2 of 8

PATENT NO. : 6,917,616

APPLICATION NO.: 09/397,849

ISSUE DATE : July 12, 2005

INVENTOR(S) : Dominique Normand, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

11. Specification, column 6, line 3: Replace the word -- communication -- with the word --communications --.
12. Specification, column 6, line 6: Replace the word -- communication -- with the word --communications --.
13. Specification, column 6, line 31: Delete the word -- be --.
14. Specification, column 6, line 32: Replace the word -- comprises -- with the word -- comprise --.
15. Specification, column 6, line 39: Replace the word -- comprises -- with the word -- comprise --.
16. Specification, column 7, line 2: Delete the word -- in --.
17. Specification, column 7, line 4: Replace the word -- communication -- with the word -- communications --.
18. Specification, column 7, line 17: Replace the word -- communication -- with the word -- communications --.
19. Specification, column 7, line 18: Insert the word -- of -- after the word -- reduction --.
20. Specification, column 7, line 21: Insert the word -- said -- before the word -- apparatus --.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

McCarthy Tetrault LLP, Box 48, Suite 4700, 66 Wellington Street West, Toronto, Ontario, Canada M5K 1E6
(File Number 123081-339655)

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**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 3 of 8

PATENT NO. : 6,917,616

APPLICATION NO.: 09/397,849

ISSUE DATE : July 12, 2005

INVENTOR(S) : Dominique Normand, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

21. Specification, column 7, line 32: Replace the word -- communication -- with the word -- communications --.
22. Specification, column 8, line 11: Replace the word -- stop -- with the word -- step --.
23. Specification, column 8, line 14: Replace the word -- date -- with the word -- data -- .
24. Specification, column 8, line 16: Replace the word -- site -- with the word -- the -- .
25. Specification, column 9, line 3: Replace the word -- Destination -- with the word -- destination --.
26. Specification, column 9, line 10: Replace the word -- the -- with the word -- for -- .
27. Specification, column 9, line 11: Replace the word -- a -- with the word -- at -- .
28. Specification, column 9, line 20: Replace the word -- Cheek -- with the word -- Check -- .
29. Specification, column 10, line 7: Replace the number -- 32 -- with the number -- 21 -- .
30. Specification, column 10, line 11: Replace the word -- Genetic -- with the word -- Generic -- .

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(File Number 123081-339655)

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JAN 23 2007

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 4 of 8

PATENT NO. : 6,917,616

APPLICATION NO.: 09/397,849

ISSUE DATE : July 12, 2005

INVENTOR(S) : Dominique Normand, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

31. Specification, column 10, line 29: Replace the word -- identifier -- with the word -- Identifier --.
32. Specification, column 10, line 31: Replace the word -- end -- with the word -- and -- .
33. Specification, column 10, line 50: Replace the word -- Lose -- with the word -- Loss -- and replace the word -- priority -- with the word -- Priority --.
34. Specification, column 10, line 52: Replace the number -- 253 -- with the number -- 255 -- .
35. Specification, column 10, line 61: Replace the word -- reduce -- with the word -- reduced -- .
36. Specification, column 10, line 67: Replace the word -- preset -- with the word -- present -- .
37. Specification, column 11, line 24: Replace the word -- Harming -- with the word -- Hamming --.
38. Specification, column 11, line 33: Replace the number -- 253 -- with the number -- 255 -- .
39. Specification, column 11, line 36: Insert a period -- . -- after the word -- polynomial -- and replace the word -- in -- with the word -- In --.
40. Specification, column 11, line 44: Replace the word -- Identifies -- with the word -- Identifier --.

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McCarthy Tetrault LLP, Box 48, Suite 4700, 66 Wellington Street West, Toronto, Ontario, Canada M5K 1E6
(File Number 123081-339655)

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 5 of 8

PATENT NO. : 6,917,616

APPLICATION NO.: 09/397,849

ISSUE DATE : July 12, 2005

INVENTOR(S) : Dominique Normand, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

41. Specification, column 12, line 10: Replace the number -- 244 -- with the number -- 24 -- .
42. Specification, column 12, line 14: Replace the word -- band -- with the word -- hand -- .
43. Specification, column 12, line 29: Replace the word -- thus -- with the word -- these -- .
44. Specification, column 12, line 31: Replace the word -- dements -- with the word -- elements -- .
45. Specification, column 12, line 34: Replace the word -- pats -- with the word -- part -- .
46. Specification, column 13, line 19: Replace the word -- herders -- with the word -- headers -- .
47. Specification, column 13, line 31: Replace the word -- entirety -- with the word -- entirely -- .
48. Specification, column 13, line 55: Replace the word -- tastes -- with the word -- takes -- .
49. Specification, column 13, line 58: Replace the word -- enlarged -- with the word -- exchanged -- .
50. Specification, column 13, line 59: Replace the word -- as -- with the word -- an -- .

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McCarthy Tetrault LLP, Box 48, Suite 4700, 66 Wellington Street West, Toronto, Ontario, Canada M5K 1E6
(File Number 123081-339655)

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 6 of 8

PATENT NO. : 6,917,616
APPLICATION NO.: 09/397,849
ISSUE DATE : July 12, 2005
INVENTOR(S) : Dominique Normand, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

51. Specification, column 14, line 20: Replace the number -- 336 -- with the number -- 33b -- .
52. Specification, column 14, line 22: Replace the word -- date -- with the word -- data -- .
53. Specification, column 15, line 39: Replace the word -- AN -- with the word -- ATM -- .
54. Specification, column 15, line 48: Replace the word -- lays -- with the word -- layer -- .
55. Specification, column 15, line 52: Replace the word -- some -- with the word -- same -- .
56. Specification, column 16, line 33: Replace the word -- AN -- with the word -- ATM -- .
57. Specification, column 16, line 18: Replace the word -- end -- with the word -- and -- .
58. Specification, column 16, line 36: Replace the word -- modification -- with the word -- modifications -- .
59. Specification, column 16, line 40: Replace the number -- 259 -- with the number -- 253 -- .
60. Specification, column 16, line 63: Replace the word -- Mode -- with the word -- Modes -- .

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McCarthy Tetrault LLP, Box 48, Suite 4700, 66 Wellington Street West, Toronto, Ontario, Canada M5K 1E6
(File Number 123081-339655)

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 7 of 8

PATENT NO. : 6,917,616
APPLICATION NO.: 09/397,849
ISSUE DATE : July 12, 2005
INVENTOR(S) : Dominique Normand, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

61. Specification, column 17, line 21: Insert a period -- . -- after the word -- Rule -- and replace the word -- in -- with the word -- In --.
62. Claim 1, column 18, line 42: Replace the word -- date -- with the word -- data -- .
63. Claim 1, column 18, line 45: Replace the word -- communication -- with the word -- communications -- .
64. Claim 1, column 18, line 48: Replace the word -- communication -- with the word -- communications -- .
65. Claim 20, column 20, line 16: Delete the word -- in -- .
66. Claim 21, column 20, line 19: Replace the word -- communication -- with the word -- communications -- .
67. Claim 21, column 20, line 20: Replace the word -- communication -- with the word -- communications -- .
68. Claim 22, column 20, line 32: Replace the word -- communication -- with the word -- communications -- .
69. Claim 22, column 20, line 35: Replace the word -- communication -- with the word -- communications -- .
70. Claim 22, column 20, line 35: Insert the word -- of -- after the word -- reduction -- .

MAILING ADDRESS OF SENDER (Please do not use customer number below):

McCarthy Tetrault LLP, Box 48, Suite 4700, 66 Wellington Street West, Toronto, Ontario, Canada M5K 1E6
(File Number 123081-339655)

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 8 of 8

PATENT NO. : 6,917,616
APPLICATION NO.: 09/397,849
ISSUE DATE : July 12, 2005
INVENTOR(S) : Dominique Normand, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- 71. Claim 22, column 20, line 39: Insert the word -- said -- after the word -- from -- .
- 72. Claim 23, column 20, line 48: Replace the word -- communication -- with the word -- communications -- .
- 73. Claim 23, column 20, line 51: Replace the word -- ceasing -- with the word -- causing -- .
- 74. Claim 23, column 20, line 53: Delete the word -- the -- .

MAILING ADDRESS OF SENDER (Please do not use customer number below):

McCarthy Tetrault LLP, Box 48, Suite 4700, 66 Wellington Street West, Toronto, Ontario, Canada M5K 1E6
(File Number 123081-339655)

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

JAN 23 2007



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Patent No. : 6,917,616
Issued : July 12, 2005
Title : METHOD AND APPARATUS FOR REDUCTION AND
RESTORATION OF DATA ELEMENTS PERTAINING TO
TRANSMITTED DATA PACKETS IN A COMMUNICATIONS
NETWORK
Applicant : Dominique Normand, et al.
Application No. : 09/397,849
Filed : September 17, 1999
Confirmation No. : 9294
Art Unit : 2662
Examiner : Melvin C. Marcelo
Docket No. : 123081-339655
Customer No. : 27,155

Commissioner of Patents
Office of Patent Publication
Attention: Certificates of Correction Branch
P.O. Box 1450
Alexandria, V.A. 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION

Sir:

The Applicant respectfully requests the issue of a Certificate of Correction for the above noted patent.

01/19/2007 SZEWDIE1 00000139 150633 6917616
01 FC:1811 100.00 DA

JAN 23 2007

The errors for which corrections are requested were made by the Patent Office (i.e., items 1-10, 13, 22-64, and 73 below) and by the Applicant (i.e., items 11-12, 14-21, 65-72, and 74 below).

The requested corrections are as follows:

1. Abstract, line 4: Replace the semi-colon -- ; -- with a colon -- : --.
2. Abstract, line 5: Delete the semi-colon -- ; --.
3. Specification, column 1, line 28: Replace the word -- element -- with the word -- elements --.
4. Specification, column 1, line 33: Replace the word -- leader -- with the word -- header --.
5. Specification, column 1, line 51: Replace the word -- comes -- with the word -- connects --.
6. Specification, column 2, line 16: Replace the word -- is -- with the word -- in --.
7. Specification, column 3, line 9: Replace the word -- site -- with the word -- size --.
8. Specification, column 3, line 14: Replace the -- end -- with the word -- and --.
9. Specification, column 4, line 56: Replace the word -- end -- with the word -- and --.
10. Specification, column 4, line 60: Replace the word -- as -- with the word -- an --.
11. Specification, column 6, line 3: Replace the word -- communication -- with the word -- communications --.
12. Specification, column 6, line 6: Replace the word -- communication -- with the word -- communications --.
13. Specification, column 6, line 31: Delete the word -- be --.
14. Specification, column 6, line 32: Replace the word -- comprises -- with the word -- comprise --.
15. Specification, column 6, line 39: Replace the word -- comprises -- with the word -- comprise --.
16. Specification, column 7, line 2: Delete the word -- in --.
17. Specification, column 7, line 4: Replace the word -- communication -- with the word -- communications --.
18. Specification, column 7, line 17: Replace the word -- communication -- with the word -- communications --.

JAN 23 2007

19. Specification, column 7, line 18: Insert the word -- of -- after the word -- reduction --.
20. Specification, column 7, line 21: Insert the word -- said -- before the word -- apparatus --.
21. Specification, column 7, line 32: Replace the word -- communication -- with the word -- communications --.
22. Specification, column 8, line 11: Replace the word -- stop -- with the word -- step --.
23. Specification, column 8, line 14: Replace the word -- date -- with the word -- data -- .
24. Specification, column 8, line 16: Replace the word -- site -- with the word -- the -- .
25. Specification, column 9, line 3: Replace the word -- Destination -- with the word -- destination --.
26. Specification, column 9, line 10: Replace the word -- the -- with the word -- for -- .
27. Specification, column 9, line 11: Replace the word -- a -- with the word -- at -- .
28. Specification, column 9, line 20: Replace the word -- Cheek -- with the word -- Check -- .
29. Specification, column 10, line 7: Replace the number -- 32 -- with the number -- 21 -- .
30. Specification, column 10, line 11: Replace the word -- Genetic -- with the word -- Generic -- .
31. Specification, column 10, line 29: Replace the word -- identifier -- with the word -- Identifier --.
32. Specification, column 10, line 31: Replace the word -- end -- with the word -- and -- .
33. Specification, column 10, line 50: Replace the word -- Lose -- with the word -- Loss -- and replace the word -- priority -- with the word -- Priority --.
34. Specification, column 10, line 52: Replace the number -- 253 -- with the number -- 255 -- .
35. Specification, column 10, line 61: Replace the word -- reduce -- with the word -- reduced -- .
36. Specification, column 10, line 67: Replace the word -- preset -- with the word -- present -- .
37. Specification, column 11, line 24: Replace the word -- Harming -- with the word -- Hamming --.
38. Specification, column 11, line 33: Replace the number -- 253 -- with the number -- 255 -- .

JAN 23 2007

39. Specification, column 11, line 36: Insert a period -- . -- after the word -- polynomial -- and replace the word -- in -- with the word -- In --.
40. Specification, column 11, line 44: Replace the word -- Identifies -- with the word -- Identifier --.
41. Specification, column 12, line 10: Replace the number -- 244 -- with the number -- 24 -- .
42. Specification, column 12, line 14: Replace the word -- band -- with the word -- hand -- .
43. Specification, column 12, line 29: Replace the word -- thus -- with the word -- these -- .
44. Specification, column 12, line 31: Replace the word -- dements -- with the word -- elements -- .
45. Specification, column 12, line 34: Replace the word -- pats -- with the word -- part -- .
46. Specification, column 13, line 19: Replace the word -- herders -- with the word -- headers -- .
47. Specification, column 13, line 31: Replace the word -- entirety -- with the word -- entirely -- .
48. Specification, column 13, line 55: Replace the word -- tastes -- with the word -- takes -- .
49. Specification, column 13, line 58: Replace the word -- enlarged -- with the word -- exchanged -- .
50. Specification, column 13, line 59: Replace the word -- as -- with the word -- an -- .
51. Specification, column 14, line 20: Replace the number -- 336 -- with the number -- 33b -- .
52. Specification, column 14, line 22: Replace the word -- date -- with the word -- data -- .
53. Specification, column 15, line 39: Replace the word -- AN -- with the word -- ATM -- .
54. Specification, column 15, line 48: Replace the word -- lays -- with the word -- layer -- .
55. Specification, column 15, line 52: Replace the word -- some -- with the word -- same -- .
56. Specification, column 16, line 33: Replace the word -- AN -- with the word -- ATM -- .
57. Specification, column 16, line 18: Replace the word -- end -- with the word -- and -- .
58. Specification, column 16, line 36: Replace the word -- modification -- with the word -- modifications -- .
59. Specification, column 16, line 40: Replace the number -- 259 -- with the number -- 253 -- .

JAN 23 2007

60. Specification, column 16, line 63: Replace the word -- Mode -- with the word -- Modes -- .
61. Specification, column 17, line 21: Insert a period -- . -- after the word -- Rule -- and replace the word -- in -- with the word -- In --.
62. Claim 1, column 18, line 42: Replace the word -- date -- with the word -- data -- .
63. Claim 1, column 18, line 45: Replace the word -- communication -- with the word -- communications -- .
64. Claim 1, column 18, line 48: Replace the word -- communication -- with the word -- communications -- .
65. Claim 20, column 20, line 16: Delete the word -- in -- .
66. Claim 21, column 20, line 19: Replace the word -- communication -- with the word -- communications -- .
67. Claim 21, column 20, line 20: Replace the word -- communication -- with the word -- communications -- .
68. Claim 22, column 20, line 32: Replace the word -- communication -- with the word -- communications -- .
69. Claim 22, column 20, line 35: Replace the word -- communication -- with the word -- communications -- .
70. Claim 22, column 20, line 35: Insert the word -- of -- after the word -- reduction -- .
71. Claim 22, column 20, line 39: Insert the word -- said -- after the word -- from -- .
72. Claim 23, column 20, line 48: Replace the word -- communication -- with the word -- communications -- .
73. Claim 23, column 20, line 51: Replace the word -- ceasing -- with the word -- causing -- .
74. Claim 23, column 20, line 53: Delete the word -- the -- .

JAN 23 2007

Please find enclosed a completed Form PTO/SB/44 ("Certificate of Correction") indicating the above corrections. Also enclosed in a completed Form PTO/SB/17 ("Fee Transmittal") for payment of the required fees.

The Commissioner is hereby authorized to charge all necessary fees and to credit Deposit Account No. 150633 in the name of McCarthy Tétrault LLP (Customer No. 27,155).

The above corrections are fully supported by the application as filed and the following documents (a copy of each of which is enclosed for reference):

1. Applicant's "Amendment After Allowance Under 37 CFR §1.312" of March 4, 2005;
2. Applicant's "Response To Office Action" of October 21, 2004; and,
3. Applicant's "Response To Office Action" of February 27, 2004.

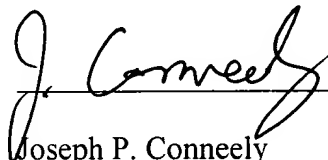
No new matter has been entered by the above corrections.

Respectfully submitted,

McCarthy Tétrault LLP

Date: January 16, 2007

By


Joseph P. Conneely
Registration No. 54,883
Telephone: (416) 601-8179
Fax: (416) 868-0673

McCarthy Tétrault LLP
Box 48, Suite 4700
66 Wellington Street West
Toronto Dominion Bank Tower
Toronto, Ontario, Canada
M5K 1E6

Enclosures

JAN 23 2007



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: **NORMAND, Dominique; ANDRE, Marc; MALOREY, Didier
and AMBROSIO, Esabel**

Serial No.: 09/397,849

Filed: September 17, 1999

Title: METHOD AND APPARATUS FOR REDUCTION AND RESTORATION OF
DATA ELEMENTS PERTAINING TO TRANSMITTED DATA PACKETS
IN A COMMUNICATIONS NETWORK

Examiner: MARCELO, Melvin C.

Art Unit: 2662

Confirmation No: 9294

Atty's Docket No: 123081-339655 (T01215-0039-US)

Commissioner for Patents
United States Patent and Trademark Office
220 20th Street South
Customer Window, Mail Stop ISSUE FEE
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202
U.S.A.

AMENDMENT AFTER ALLOWANCE UNDER 37 CFR §1.312

Dear Commissioner:

Kindly note that by way of a transmittal of March 4, 2005 to Mail Stop Issue Fee we are submitting the Issue Fee in response to the Notice of Allowance dated December 8, 2004. Also by way of a transmittal of March 4, 2005 to Mail Stop Issue Fee, we are submitting formal drawings to the Official Draftsperson and a certified copy of the foreign priority document for the captioned application.

Further to the Notice of Allowance dated December 8, 2004, and pursuant to 37 CFR §1.312, kindly amend the subject application as follows; in view of the comments set out here below:

Amendments to the Specification begin on page 2 of this paper.

Remarks begin on page 5 of this paper.

JAN 23 2007

Amendments to the Specification:

Please add the following paragraphs at page 9, line 3 before the heading "BRIEF DESCRIPTION OF THE DRAWINGS":

According to another broad aspect of the present invention, a method for transmission of a stream of data between first and second communications devices of a transmission system is provided. The data is segmented into packets prior to transmission thereof. Each of the packets comprises a header of a given size and a payload. The method comprises the steps of: (a) at the first communications device, in the header in the stream of data, examining a predetermined data element and evaluating information therein to determine whether the information is available to the first and second communication devices, independently from information in other headers in the stream of data; (b) if the information is available to the first and second communication devices, reducing the given size of the header prior to the transmission of packets by eliminating the predetermined data element therefrom to form a reduced header; (c) transmitting the reduced header from the first of the two communications devices to the second communications device; and (d) at the second communications device, restoring the given size of the header when the reduced header so transmitted has been received by the second of the two communications devices by reconstituting the predetermined data element thereto.

The reconstituting of the predetermined data element may be accomplished by the insertion into the reduced header of a bit having a value of zero. Error verification of the transmitted packet may be conducted only in relation to bits forming part of the reduced header. The error verification may be accomplished by encoding the reduced header with a header error check field. The error verification may be computed by way of a Hamming code.

All headers transmitted from the first communications device may be examined. The packets may be cells of a fixed length. The cells may be Asynchronous Transfer Mode (ATM) cells.

An additional data element may be eliminated from the header. The data element and the additional data element may comprise a Virtual Path Identifier (VPI) and a Virtual Channel Identifier (VCI). The reduced header may comprises a least significant portion of the VPI and a least significant portion of the VCI. The reconstituting of each predetermined data element may include adding a sufficient number of bits each having a value of zero to the portion of the VPI and the portion of the VCI.

The header, prior to the eliminating of predetermined data elements therefrom, may comprises a Generic Flow Control (GFC) field. The Generic Flow Control (GFC) field may be eliminated to further form the reduced header. The reconstituting of each predetermined data element may include adding a sufficient number of bits each having a value of zero to the reduced header to reconstitute the GFC field.

The header error check field of the header prior to the eliminating of predetermined data elements therefrom and of the reduced header may be a Header Error Check (HEC) field according to the Asynchronous Transfer Mode (ATM) protocol. The header error check field of the header prior to the eliminating of predetermined data elements therefrom and of the reduced header may be a Header Error Check (HEC) field according to the Asynchronous Transfer Mode (ATM) protocol and in the case of the reduced headers may be encoded on fewer than 8 bits. The Header Error Check (HEC) field of the reduced headers may be encoded on 5 bits.

Each header to which the step of reducing is applied may be identified on instructions received by the first communications device. The predetermined data element may be identified for elimination on instructions received by the first communications device. The instructions may be furnished by the second communications device. The instructions may be furnished by a network management device. The instructions may be furnished by a network management device.

The additional data element may relate to information selected from one of: a payload type; a cell loss priority; and a header error check. The stream of data may be examined for a header in on a periodic basis. The first and second communication

devices may negotiate before the first communication device examines the stream of data.

According to yet another broad aspect of the present invention, an apparatus for transmission of a stream of data to a communications device of a transmission system is provided. The data is segmented into packets prior to transmission thereof. Each of the packets comprises a header of a given size and a payload. The apparatus comprises a processor which: examines the header in the stream of data; examines a predetermined data element therein; evaluates information in the header to determine whether the information is available to the apparatus and the communication device, independently from information in other headers in the stream of data; if the information is available to the apparatus and the communication device, causes the reduction the given size of the header prior to the transmission of packets by eliminating the predetermined data element therefrom to form a reduced header; and controls transmitting the reduced header from apparatus.

According to a further broad aspect of the present invention, an apparatus for reception of a stream of data transmitted by a communications device in a transmission system is provided. The data is segmented into packets prior to transmission thereof. Each of the packets comprises a header of a given size and a payload. The given size of the header having been reduced by the communications device prior to the transmission of packets by evaluating information in the header to determine whether the information is available to the communication device and the apparatus independently from information in other headers in the stream of data, and if the information is available to the communications device and the apparatus, causing the reduction of the given size of the header prior to the transmission of packets by eliminating the information therefrom to form a reduced header. The apparatus comprises: a processor which restores the given size of the header when the reduced header so transmitted has been received by the apparatus by reconstituting the eliminated information.

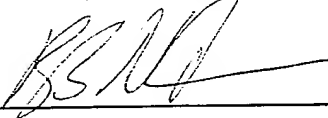
REMARKS

In the specification, Applicant amends the language of the Summary of Invention section to track the claims as amended.

No new matter has been added by way of the present Amendment.

Applicant respectfully requests that the foregoing amendments be incorporated in the application. The Examiner is invited to contact the undersigned attorney by telephone to discuss this case further, if necessary.

Respectfully submitted



March 4, 2005

Date

Robert H. Nakano
(Registration No. 46,498)

McCarthy Tétrault LLP
Box 48, Suite 4700
66 Wellington Street West
Toronto Dominion Bank Tower
Toronto, Ontario M5K 1E6 Canada

Telephone: (416) 601-7852
Facsimile: (416) 858-0673

Certificate of Transmission:

Pursuant to 37 C.F.R. s. 1.8, I certify that the following correspondence is being transmitted via facsimile transmission to the United States Patent Office at telephone number (703) 872-9306 on October 21, 2004.

Signature: _____

Date: October 21, 2004

Name: _____

Edward Fan

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re. Application of: NORMAND, D. et al
Serial No.: 09/397,849
Filed: July 17, 1999
Title: Method and Apparatus for Reduction and Restoration of Data Elements Pertaining to Transmitted Data Packets in a Communication Network
Examiner: MARCELO, Melvin C.
Art Unit: 2663
Confirmation Number: 9294
Atty's Docket No.: T01215-0039 US (123081-339655)

Commissioner for Patents
United States Patent and Trademark Office
220 20th Street South
Customer Window, Mail Stop RCE
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202
U.S.A.

RESPONSE TO OFFICE ACTION

Sir:

This is in response to the Office Action mailed May 21, 2004. This response is filed contemporaneously with a petition for a two-month extension, to extend the period for timely reply to October 21, 2004. This response is filed contemporaneously with a request for continued examination and a notice of change of representative. Commissioner is authorized to

JAN 23 2007

charge all fees relating to the extension and any further fees to agent's deposit account no. 15-

0633. Applicant hereby petitions for a further extension, if required.

No new claim is added by the present amendment. As such, no additional claim fee is believed to be required.

Kindly amend the subject application as follows, in view of the comments set out herebelow.

Amendments to the Claims are reflected in the listings of claims which beings on page 3 of this paper.

Remarks begin on page 8 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for transmission of a stream of data between first and second communications devices of a transmission system, the data being segmented into packets prior to transmission thereof, each of the packets comprising a header of a given size and a payload, the method comprising the steps of:

(a) at said first communications device, in the header in the stream of data, examining a predetermined data element and evaluating information therein to determine whether said information is available to said first and second communication devices, independently from information in other headers in the stream of data;

(b) if said information is available to said first and second communication devices, reducing the given size of the header prior to said transmission of packets by eliminating the predetermined data element therefrom to form a reduced header;

(c) transmitting said reduced header from said first of the two communications devices to said second communications device; and

(d) at said second communications device, restoring the given size of the said header when said reduced header so transmitted has been received by said second of the two communications devices by reconstituting said predetermined data element thereto.

2. (Cancelled)

3. (Previously Presented) The method of transmission according to Claim 1, wherein the reconstituting of said predetermined data element is accomplished by the insertion into the reduced header of a bit having a value of zero.

4. (Previously Presented) The method of transmission according to Claim 3, wherein error verification of the transmitted packet is conducted only in relation to bits forming part of the reduced header.

5. (Original) The method of transmission according to Claim 4, wherein the error verification is accomplished by encoding the reduced header with a header error check field.

6. (Original) The method of transmission according to Claim 5, wherein the error verification is computed by way of a Hamming code.

7. (Previously Presented) The method of transmission according to Claim 6, wherein all headers transmitted from said first communications device are examined.

8. (Original) The method of transmission according to Claim 6, wherein the packets are cells of a fixed length.

9. (Original) The method of transmission according to Claim 8, wherein the cells are Asynchronous Transfer Mode (ATM) cells.

10. (Previously Presented) The method of transmission according to Claim 9, wherein

an additional data element is eliminated from said header; said data element and said additional data element comprise a Virtual Path Identifier (VPI) and a Virtual Channel Identifier (VCI);

said reduced header comprises a least significant portion of said VPI and a least significant portion of said VCI; and

the reconstituting of each predetermined data element includes adding a sufficient number of bits each having a value of zero to the portion of said VPI and the portion of the VCI.

11. (Previously Presented) The method of transmission according to Claim 10, wherein

the header, prior to said eliminating of predetermined data elements therefrom, comprises a Generic Flow Control (GFC) field, the Generic Flow Control (GFC) field being eliminated to further form said reduced header; and the reconstituting of each predetermined data element

includes adding a sufficient number of bits each having a value of zero to the reduced header to reconstitute said GFC field.

12. (Previously Presented) The method of transmission according to Claim 11, wherein the header error check field of said header prior to said eliminating of predetermined data elements therefrom and of said reduced header is a Header Error Check (HEC) field according to the Asynchronous Transfer Mode (ATM) protocol.

13. (Currently Amended) The method of transmission according to Claim 11, wherein the header error check field of said header prior to said eliminating of predetermined data elements therefrom and of said reduced header is a Header Error Check (HEC) field according to the Asynchronous Transfer Mode (ATM) protocol and in the case of the reduced headers is encoded on fewer than 8 bits.

14. (Currently Amended) The method of transmission according to Claim ~~13~~ 12, wherein the Header Error Check (HEC) field of the reduced headers is encoded on 5 bits.

15. (Currently Amended) The method of transmission according to Claim 14, wherein the each selected number of headers header to which the step of reducing is applied is determined identified on instructions received by the first communications device.

16. (Previously Presented) The method of transmission according to Claim 14, wherein the predetermined data element is identified for elimination on instructions received by the first communications device.

17. (Previously Presented) The method of transmission according to Claim 15, wherein said instructions are furnished by the second communications device.

18. (Cancelled)

19. (Original) The method of transmission according to Claim 15, wherein the said instructions are furnished by a network management device.

20. (Original) The method of transmission according to Claim 16, wherein the said instructions are furnished by a network management device.

21. (Cancelled)

22. (Cancelled)

23. (Previously Presented) An apparatus for transmission of a stream of data to a communications device of a transmission system, the data being segmented into packets prior to transmission thereof, each of the packets comprising a header of a given size and a payload, the apparatus comprising a processor which

examines the header in the stream of data;

examines a predetermined data element therein;

evaluates information in said header to determine whether said information is available to said apparatus and said communication device, independently from information in other headers in the stream of data;

if said information is available to said apparatus and said communication device, causes the reduction the given size of the header prior to said transmission of packets by eliminating the predetermined data element therefrom to form a reduced header; and

controls transmitting said reduced header from apparatus.

24. (Currently Amended) An apparatus for reception of a stream of data transmitted by a communications device in a transmission system, the data being segmented into packets prior to transmission thereof, each of the packets comprising a header of a given size and a payload, the given size of said header having been reduced by the communications device prior to said transmission of packets by evaluating information in said header to determine whether said information is available to said communication device and said apparatus independently from information in other headers in the stream of data, and if said information is available to said communications device and said apparatus, causing the reduction of the given size of the header prior to said transmission of packets by eliminating the ~~predetermined data element~~ said information therefrom to form a reduced header, the apparatus comprising

a processor which restores the given size of said header when said reduced header so transmitted has been received by the apparatus by reconstituting said ~~predetermined data element~~ eliminated information.

25. (Previously Presented) The method of transmission according to Claim 10, wherein said additional data element relates to information selected from one of: a payload type; a cell loss priority; and a header error check.

26. (Previously Presented) The method of transmission according to Claim 10, wherein said stream of data is examined for a header in on a periodic basis.

27. (Previously Presented) The method of transmission according to Claim 10, wherein said first and second communication devices negotiate before said first communication device examines said stream of data.

REMARKS

Applicant acknowledges the requirement under 35 U.S.C. §. 119(b) to provide a certified copy of the foreign priority document for European Patent Application No. 98 460 038.7 filed on September 19, 1998. Applicant will be submitting a certified copy to the Office after receiving Examiner's comments on this Reponse.

In the Office Action of May 27, 2004, Examiner allowed claims 1, 3-12, 23 and 25-27. Examiner rejected claims 13-17, 19, 20 and 24 under 35 U.S.C. §. 112, second paragraph, as being indefinite. In the present amendment, Applicant amends claims 13-15 and 24 to traverse the rejection. No new matter has been added by the present amendments.

Claim 13 is amended to define a size for the reduced header being 8 bits or less. Support for the amendment is found, for example, in the specification at page 6, lines 26 through page 7, line 2.

Claim 14 is amended to depend from claim 12 instead of claim 13.

Claim 15 is amended to replace the phrase "each header" with -- the selected number of headers -- to provide a proper antecedent reference. The term "determined" is also replaced with -- identified -- for clarity.

Claim 24 is amended to replace the term "predetermined information" with -- said information -- to provide a proper antecedent reference. Two grammatical correction are also made to claim 24 as noted in the marked-up claimed listing.

As claims 16, 17, 19 and 20 depend, directly or indirectly from amended claims 14 and 15, the rejection to such claims are traversed.

Not new subject matter is provided with the present amendments. In view of the present amendments, Applicant respectfully submits that claims 13-17, 19, 20 and 24 are compliant with 35 U.S.C. § 112, second paragraph, and respectfully requests that Examiner withdraw the rejection thereunder.

In view of the present amendments, Applicant submits that the claims as provided herein are in condition for allowance. Applicant earnestly solicits that this application be permitted to proceed to allowance. The Examiner is invited to contact the undersigned by telephone to discuss this case further, if necessary.

Respectfully submitted



October 21, 2004

Date

Robert H. Nakano
(Registration No. 46,498)

McCarthy Tétrault LLP
Box 48, Suite 4700
66 Wellington Street West
Toronto Dominion Bank Tower
Toronto, Ontario M5K 1E6 Canada

Telephone: (416) 601-7852

Facsimile: (416) 868-0673

Certificate of Transmission:

Pursuant to 37 C.F.R. s. 1.8, I certify that the following correspondence is being transmitted via facsimile transmission to the United States Patent Office at telephone number (703) 872-9306 on February 27, 2004.

Signature:



Date: February 27, 2004

Name:

Robert H. Nakano (Reg 46, 498)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re. Application of: NORMAND, D. et al
Serial No.: 09/397,849
Filed: 07/17/1999
Title: Method and Apparatus for Reduction and Restoration of Data Elements Pertaining to Transmitted Data Packets in a Communication Network
Examiner: EMDADI, Mehdi
Art Unit: 2663
Confirmation Number: 9294
Atty's Docket No.: T01215-0039 US (123081-339655)

Commissioner for Patents
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Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202
U.S.A.

RESPONSE TO OFFICE ACTION

Sir:

This is in response to the Office Action dated November 27, 2003. This response is filed contemporaneously with a petition for a one-month extension. Commissioner is authorized to charge all fees relating to the extension and any further fees to agent's deposit account 15-0633. Applicant hereby petitions for a further extension, if required.

Amendments to the Drawings are reflected on page 3 of this paper.

Amendments to the Abstract are reflected on page 4 of this paper.

Amendments to the Claims are reflected in the listings of claims which are provided on pages 5 to 10 of this paper.

Remarks are provided on pages 11 to 14 of this paper.

JAN 23 2007

Amendments to the Drawings

In the drawings, drawing sheet showing proposed Figure 3 is provided to replace drawing sheet containing Figure 3. Replacement drawing sheet is provided at the end of this Response.

JAN 23 2007

Amendments to the Abstract

ABSTRACT

~~Disclosed is a~~ The invention relates to a system and method for the transmission of data organized as cells. ~~Each of the cells comprises~~ comprising a header and a payload. ~~The method comprises a step for the reduction~~ In particular, the following steps are taken in the system and method: reducing of the size of at least certain of the headers; for transmission between two communications devices of a network, to form headers that are reduced in size by the elimination of predetermined data elements. ~~At least, and at~~ one of the communications devices reconstruct, reconstructing the headers to their original size from the reduced headers. ~~The invention also relates to a reduced cell, and to a communications system and a corresponding network terminal device which perform the method of header reduction and header reconstruction.~~

JAN 23 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (presently amended) A method for transmission of a stream of data between ~~two~~ first and second communications devices of a transmission system, the data being segmented into packets prior to transmission thereof, each of the packets comprising a header of a given size and a payload, the method comprising the steps of:
 - (a) at a first of the two communications said first communications device, in the header in the stream of data, examining a predetermined data element and evaluating information therein to determine whether said information is available to said first and second communication devices, independently from information in other headers in the stream of data;
 - (b) if said information is available to said first and second communication devices, reducing the given size of a selected number of said headers the header prior to said transmission of packets by eliminating a the predetermined data element therefrom to thereby respectively form a reduced headers header;
 - (bc) transmitting each of said reduced headers header from said first of the two communications devices to a said second of the two communications devices device; and
 - (ed) at said second of the two communications devices device, restoring the given size of the selected number of said headers header when each of said reduced headers header so transmitted has been received by said second of the two communications devices by reconstituting each said predetermined data element thereto.
2. (cancelled)

3. (presently amended) The method of transmission according to Claim 3, 1, wherein the reconstituting of ~~each~~ said predetermined data element is accomplished by the insertion into the reduced header of a bit having a value of zero.
4. (presently amended) The method of transmission according to Claim 3, wherein error verification of the transmitted ~~packets~~ packet is conducted only in relation to bits forming part of the reduced header.
5. (original) The method of transmission according to Claim 4, wherein the error verification is accomplished by encoding the reduced header with a header error check field.
6. (original) The method of transmission according to Claim 5, wherein the error verification is computed by way of a Hamming code.
7. (presently amended) The method of transmission according to Claim 6, wherein the ~~selected number of headers constitutes all of the~~ all headers transmitted from said first of the two communications ~~devices~~ device are examined.
8. (original) The method of transmission according to Claim 6, wherein the packets are cells of a fixed length.
9. (original) The method of transmission according to Claim 8, wherein the cells are Asynchronous Transfer Mode (ATM) cells.
10. (presently amended) The method of transmission according to Claim 9, wherein a plurality of said predetermined data elements is ~~eliminated and the headers, prior to said eliminating of predetermined data elements therefrom, each comprises two multiplexing identifiers in the form of a complete~~

an additional data element is eliminated from said header;

JAN 23 2007

said data element and said additional data element comprise a Virtual Path Identifier (VPI) encoded on 8 bits and a complete Virtual Channel Identifier (VCI) encoded on 16 bits, and wherein the headers, after said eliminating of a predetermined data element therefrom, each comprises a reduced Virtual Path Identifier (VPI) encoded on 4 bits corresponding to 4 least significant bits of the complete Virtual Path Identifier (VPI) and each further comprises a Virtual Channel Identifier (VCI) encoded on 8 bits corresponding to 8 least significant bits of the complete Virtual Channel Identifier (VCI), and wherein;

said reduced header comprises a least significant portion of said VPI and a least significant portion of said VCI; and

the reconstituting of each predetermined data element includes adding respectively 4 and 8 a sufficient number of bits each having a value of zero to the reduced Virtual Path Identifier (VPI) and to the reduced Virtual Connection Identifier (VCI) portion of said VPI and the portion of the VCI.

11. (presently amended) The method of transmission according to Claim 10, wherein

the ~~headers~~ header, prior to said eliminating of predetermined data elements therefrom, each comprises a 4-bit Generic Flow Control (GFC) field, the Generic Flow Control (GFC) field being eliminated to further form said reduced ~~headers~~, header; and ~~wherein~~

the reconstituting of each predetermined data element includes adding [[4]] a sufficient number of bits each having a value of zero to the reduced header to reconstitute said GFC field.

12. (presently amended) The method of transmission according to Claim 11, wherein the header error check field of ~~each~~ said header prior to said eliminating of predetermined data elements therefrom and of ~~each~~ said reduced header is a Header Error Check (HEC) field according to the Asynchronous Transfer Mode (ATM) protocol ~~and is encoded on 8 bits.~~

JAN 23 2007
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13. (presently amended) The method of transmission according to Claim 11, wherein the header error check field of ~~each~~ said header prior to said eliminating of predetermined data elements therefrom and of ~~each~~ said reduced header is a Header Error Check (HEC) field according to the Asynchronous Transfer Mode (ATM) protocol ~~and in the case of the reduced headers is encoded on fewer than 8 bits.~~

14. (original) The method of transmission according to Claim 13, wherein the Header Error Check (HEC) field of the reduced headers is encoded on 5 bits.

15. (presently amended) The method of transmission according to Claim 14, wherein ~~the~~ each ~~selected number of header~~ to which the step of reducing is applied is determined on instructions received by the first of ~~the two~~ communications ~~devices~~ device.

16. (presently amended) The method of transmission according to Claim 14, wherein the predetermined data ~~elements are~~ element is identified for elimination on instructions received by the first of ~~the two~~ communications ~~devices~~ device.

17. (presently amended) The method of transmission according to Claim 15, wherein ~~the~~ said instructions are furnished by the second of ~~the two~~ communications ~~devices~~ device.

18. (cancelled)

19. (original) The method of transmission according to Claim 15, wherein the said instructions are furnished by a network management device.

20. (original) The method of transmission according to Claim 16, wherein the said instructions are furnished by a network management device.

21. (cancelled)

22. (cancelled)

probably leave this limitation in to overcome Examiner's objection

is identified

JAN 23 2005

23. (presently amended) An apparatus for transmission of a stream of data to a communications device of a transmission system, the data being segmented into packets prior to transmission thereof, each of the packets comprising a header of a given size and a payload, the apparatus comprising a processor which ~~reduces the given size of a selected number of said headers~~

examines the header in the stream of data;

examines a predetermined data element therein;

evaluates information in said header to determine whether said information is available to said apparatus and said communication device, independently from information in other headers in the stream of data;

if said information is available to said apparatus and said communication device, causes the reduction the given size of the header prior to said transmission of packets by eliminating a the predetermined data element therefrom to thereby respectively form reduced headers, and wherein the given size is restored to the reduced headers when same are received by the communications device by reconstituting each said data element form a reduced header; and

controls transmitting said reduced header from apparatus.

24. (presently amended) An apparatus for reception of a stream of data transmitted by a communications device of ^{of} ~~in~~ a transmission system, the data being segmented into packets prior to transmission thereof, each of the packets comprising a header of a given size and a payload, the given size of ~~a selected number of said headers~~ header having been reduced by the communications device prior to said transmission of packets by ~~eliminating a~~ evaluating information in said header to determine whether said information is available to said communication device and said apparatus independently from information in other headers in the stream of data, and if said information is available to said communications device and said

JAN 23 2007
JAN 23 2007

said information
apparatus, causing the reduction the given size of the header prior to said transmission of packets
by eliminating the predetermined data element therefrom to thereby form a reduced
headersheader, the apparatus comprising

a processor which restores the given size of ~~the selected number of said headers~~ header
when ~~each of said reduced headers~~ header so transmitted has been received by the
apparatus by reconstituting ~~each said predetermined data element~~.

*eliminated
information.*

25. (new) The method of transmission according to Claim 10, wherein said additional data
element relates to information selected from one of: a payload type; a cell loss priority; and a
header error check.

26. (new) The method of transmission according to Claim 10, wherein said stream of data is
examined for a header in on a periodic basis.

27. (new) The method of transmission according to Claim 10, wherein said first and second
communication devices negotiate before said first communication device examines said stream
of data.

REMARKS

Agents of Record

For the captioned application, the undersigned attorney advises that the contact agent of record, Alfred Macchione, has relocated his practice to the firm of:

McCarthy Tétrault LLP
Customer Service #: 27155
Toronto Dominion Bank Tower
P.O. Box 48, Suite 4700
Toronto, Ontario
M5K 1E6 Canada

Applicant has consented to having contact agent retain responsibility as agent of record. Undersigned attorney advises that in total the following agents of record are also now associated with the same customer number and have the authority to also act on behalf of the Applicant for the above matter:

Alfred Macchione	Reg. No. 40,333	
Robert Nakano	Reg. No. 46,498	(undersigned attorney)
Brian Gray	Reg. No. 30,017	
Kenneth Bousfield	Reg. No. 40,460	

Undersigned attorney also advises that the attorney reference number has been changed to

Atty's Docket No.: T01215-0039 US (123081-339655).

Applicant requests that the USPTO update its records for this application accordingly.

Summary of Office Action

Examiner objected to Figure 3 for lacking labels. Examiner objected to abstract for containing improper language.

JAN 23 2007

JAN 23 2007

Examiner rejected claims 2, 3, and 20 under 35 U.S.C. 112 as being indefinite. Examiner rejected claims 21 and 22 under 35 U.S.C. 101 as being directed to non-statutory subject matter "signal". Examiner rejected claims 1, 23 and 24 under 35 U.S.C. 102 (e) in view of U.S. Patent No. 5,717,6890 to Ayanoglu ("Ayanoglu").

IN THE DRAWINGS

Applicant provides proposed corrected drawing sheet containing Figure 3 wherein labels have been added. Exemplary support for labels are found on page 17, line 11 to page 21, line 23 of the specification. If proposed corrected drawing sheet is acceptable to Examiner, Applicant will provide a formal drawing sheet in due course. As such, Applicant traverses objections to the drawings. Applicant notes that Notice of Draftperson's review dated 1/28/00 indicate objections to all drawings for having poor line quality. Applicant will provide a complete set of replacement drawings in due course.

IN THE ABSTRACT

Applicant provides an amended Abstract wherein the term "comprises" is not used. As such, Applicant traverses objections to the Abstract.

IN THE CLAIMS

In this Response, Applicant amends claims 1, 3, 4, 7, 10, 11, 12, 13, 15, 16, 17, 23 and 24 and cancels claims 2, 18, 21 and 22 to traverse Examiner's rejections. Applicant also adds new claims 25-27. There are 23 claims on file with the present amendment.

Claim 1 is amended to further define how and when header information is extracted and processed prior to producing a reduced header. Claim 10 is amended to clarify relationship between the reduced header and the VPI/VCI fields. Claim 13 is amended to clarify relationship between the reduced header and the HEC field. Other amendments made to claims depending

JAN 23 2007

from claim are provided to maintain consistency of elements defined in amended claim 1. Claim 23 is amended to further define how and when the processor defined therein extracts information from the defined header to produce the reduced header. Claim 24 is amended to further define how and when the processor identified in the preamble extracts information from the defined header to produce the reduced header.

Applicant cancels claim 2, making rejection based on 35 U.S.C. 112 moot. Applicant submits that claim 20 particularly points out and distinctly claims the identified subject matter, namely by identifying the source from where instructions relating to the reduction originate. As such, rejection of claim 20 is traversed.

Claim 3 is amended to depend from claim 1. As such, rejection of claim 3 based on 35 U.S.C. 112 is traversed.

Claims 21 and 22 are cancelled without prejudice. As such, rejections of these claims are moot.

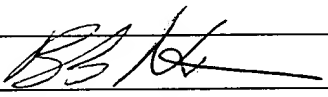
Applicant traverses rejection of claims 1, 23 and 24 as follows. Applicant's invention is directed towards reducing a header of packet in order to gain transmission efficiencies. Headers of packets are individually examined, and based on the contents of the header, without relying on contents of headers of other packets (as such information is not ordinarily used for the transmission of the packet between two identified elements in the network), the invention provides a method of reducing the size of selected data elements from a header. Claims 1, 23 and 24 have been amended to amplify these features. Exemplary support for the amendments is provided in Figure 3 and the related description in the specification from page 17, line 11 to page 21, line 23. Meanwhile, in Ayanoglu, the invention disclosed therein relates to a header reduction system for an ATM communication system where there is an interface to a wireless communication network. In the wireless network, it is expected that there errors in the packets would appear more frequently. As such, Ayanoglu provides a specific method of reducing a header of packets in such an environment. In particular, when determining when to reduce a header, Ayanoglu relies on information provided from the previously transmitted cell. See column 21, lines 53 to 56 for example. As such, all elements of claims 1, 23 and 24 are not taught in Ayanoglu and Applicant traverses rejections based on Ayanoglu.

JAN 23 2007

Further, in view of amendments made to claim 1, other amendments have been made to claims depending therefrom (as noted above) in order to provide consistency of elements defined therein. As rejection of claim 1 is traversed, Applicant submits that all claims dependent from claim 1 are allowable.

New claims 25-27 ultimately depend from claim 1 and define further aspects of data elements extracted to produce the reduced header and the frequency of implementation of the method and the synchronization required between elements defined therein. Exemplary support for these claims are found at page 16 line 24 to page 17, line 5 and at page 18 line 25 to page 19, line 4 and at page 19, line 23 through 30.

By way of the present amendment, this application is believed to be in condition for allowance and such action in due course is earnestly solicited. The Examiner is invited to contact the undersigned by telephone to discuss this case further, if necessary.

	Respectfully submitted,
February 27, 2004	
Date	Robert H. Nakano (Registration No. 46,498) McCarthy Tétrault LLP Suite 4700 Toronto Dominion Bank Tower Toronto-Dominion Centre Toronto, Ontario M5K 1E6 Canada

JAN 23 2007